

## INTERNATIONAL SEARCH REPORT

 International application No.  
PCT/KR2004/003426
**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 A61K 31/56, A61P 35/00, A23L 1/29**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 A61K 31/56, A61P 35/00, A23L 1/29

 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean patents and applications for inventions since 1975

 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Pubmed [(cinnamaldehyde OR betulinic acid) AND (cancer OR tumor)]
**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	LEE et al., 'Inhibition of human tumor growth by 2'-hydroxy- and 2'-benzoyloxycinnamaldehydes', <i>Planta Med.</i> 1999 Apr. Vol.65(3), pp.263-266 See the whole document.	1 - 6
A	JEONG et al., 'Antitumor effect of the cinnamaldehyde derivative CB403 through the arrest of cell cycle progression in the G2/M phase', <i>Biochem. Pharmacol.</i> 2003 Apr. Vol.65 (8), pp.1343-1350 See the whole document.	1 - 6
A	DORNISH et al., 'Synergistic cell inactivation of human NHIK 3025 cells by cinnamaldehyde in combination with cis-diamminedichloroplatinum(II)', <i>Cancer Res.</i> 1988 Feb. Vol.48 (4), pp.938-942 See the whole document.	1 - 6
A	THURNHER et al., 'Betulinic acid: a new cytotoxic compound against malignant head and neck cancer cells', <i>Head Neck.</i> 2003 Sep. Vol.25 (9), pp.732-740 See the whole document.	1 - 6
A	SELZER et al., 'Effects of betulinic acid alone and in combination with irradiation in human melanoma cells', <i>J. Invest. Dermatol.</i> 2000 May, Vol.114(5), pp.935-940 See the whole document.	1 - 6

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

03 FEBRUARY 2005 (03.02.2005)

Date of mailing of the international search report

**03 FEBRUARY 2005 (03.02.2005)**

Name and mailing address of the ISA/KR


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International application No.

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

- Group I. Claims 1-5 relate to a pharmaceutical composition for preventing and treating cancer comprising a Cinnamon Cortex extract including a compound of formula 1 and a Zizyphi Fructus extract including a compound of formula 2.
- Group II. Claim 6 relates to functional food for preventing and treating cancer comprising the said active ingredients.

Although both Group I and II are relevant to the composition comprising the same active ingredients, there is no technical relationship between a pharmaceutical composition and functional food.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any addition fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.